UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ASGEIR SAEBO and CARL SKARIE

Appeal 2007-1134
Application 09/544,004
Technology Center 1600

Decided: December 11, 2007

Before DONALD E. ADAMS, DEMETRA J. MILLS, and ERIC GRIMES, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 1-5, 10-19, 24-30 and 39, the only claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

INTRODUCTION

The claims are directed to a composition (claims 1-5 and 39), a food product (claims 10-14 and 24-30), and food supplement (claims 15-19). Claim 1 is illustrative:

1. A composition comprising an isomerized conjugated linoleic acid moiety, at least one free radical scavenger, and at least one metal chelator, wherein said free radical scavenger and said metal chelator are different compounds.

The Examiner relies on the following prior art references to show unpatentability:

Cain	WO 97/18320	May 22, 1997
Cook	US 5,760,082	Jun. 2, 1998
Remmereit	US 6,034,132	Mar. 7, 2000
Lievense	US 6,159,525	Dec. 12, 2000
Fimreite	US 6,524,527 B2	Feb. 25, 2003

The rejections as presented by the Examiner are as follows:

1. Claims 1-5, 10-19, 24-30, and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Cook, Lievense, Cain, and Remmereit.

2. Claims 10-19 and 24-34 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 3, and 8-22 of Fimreite.

We affirm.

DISCUSSION

Obviousness:

Claims 1-5, 10-19, 24-30, and 39 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Cook, Lievense, Cain, and Remmereit. The claims have not been argued separately and therefore stand or fall together. 37 C.F.R. § 41.37(c)(1)(vii). Therefore, we limit our discussion to representative claim 1. Claims 2-5, 10-19, 24-30, and 39 will stand or fall together with claim 1.

Claim 1 is drawn to a composition. The composition comprises three ingredients:

A. an isomerized conjugated linoleic acid moiety[1],

B. at least one free radical scavenger, and

C. at least one metal chelator[2].

In addition, claim 1 requires that the free radical scavenger and the metal chelator are different compounds.

The Examiner finds that Cook and Lievense teach compositions (food products) that comprise conjugated linoleic acid (CLA) (Answer 4-5). In addition, we find that both Cook and Lievense teach the synthesis of CLA (*see e.g.*, Cook, Example 1, col. 2, l. 15 - col. 4, l. 24; and Lievense, col. 5, l. 36 – col. 6, l. 52). We also find that Remmereit teaches that "[c]urrently,

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[1] Appellants' Specification defines the term "isomerized conjugated linoleic acid" as a "CLA [conjugated linoleic acid] synthesized by chemical methods (*e.g.*, aqueous alkali isomerization, non-aqueous alkali isomerization, or alkali alcoholate isomerization)" (Specification 7: 25-26).

[2] Appellants do not define the term "metal chelator". Instead, Appellants define the term "metal oxidant chelator" as "any antioxidant that chelates metals. Examples include, but are not limited to lecithin and citric acid esters" (Specification 9: 16-17).

most CLA is manufactured by the alkali isomerization process" (Remmereit, col. 5, ll. 14-15). Therefore, the combination of prior art relied upon teaches an isomerized CLA moiety within the scope of claim 1.

The Examiner relies on Cain and Remmereit to teach the addition of an antioxidant to a composition comprising CLA, because CLA is susceptible to oxidation (Answer 5). In this regard we find that Cain teaches the addition of "an effective amount of an oxidation stabilizer, selected from the group, consisting of: natural or synthetic tocopherols, TBHQ, BHT, BHA, free radical scavengers, propylgallate, ascorbylesters of fatty acids and enzymes with anti-oxidant properties" (Cain 6: 31-36). Similarly, Remmereit teaches that "it is desirable to package CLA for human use with suitable antioxidants such as lecithin, tocopherols, ascorbate, ascorbyl palmitate or spice extracts such as rosemary extract" (Remmereit, col. 5, ll. 10-13). Tocopherols and ascorbyl palmitate are free radical scavengers, as recited in claim 1 (Specification 23: 17-19).

As for the metal chelator required by Appellants' claimed invention, the Examiner directs attention to page 23 of Appellants' Specification, which states "[e]xamples of metal oxidant chelators include, but are not limited to, citric acid esters and lecithin. Some commercially available compounds (*e.g.*, Controx, Grumau (Henkel), Illertissen, DE) include both peroxide scavengers and metal chelators (*e.g.*, lecithin, tocopherols [(vitamin E)], ascorbylpalmitate, and citric acid esters)" (Specification 23: 21-24). Thus, Appellants' Specification recognizes that tocopherol, or vitamin E, was known in the prior art as a metal chelator.

Both of Cook and Lievense teach compositions comprising CLA and vitamins (*see e.g.*, Cook, col. 2, ll. 2-4; col. 4, example 3; cols. 4-5, example

5; and Lievense, col. 5, ll. 3-5). In this regard, we find that Lievense expressly teaches vitamins, such as vitamin E, as a component of a composition comprising CLA (Lievense, col. 5, ll. 3-20). Thus, while Lievense does not expressly teach vitamin E as a metal chelator or an antioxidant; Lievense does suggest its inclusion, as a vitamin, in a composition comprising CLA. Appellants acknowledge that commercially available formulations comprising both vitamin E (tocopherol) and peroxide scavengers (e.g., free radical scavengers or antioxidants) where known in the art at the time the invention was made (Specification 23: 21-24). Accordingly, it would have been prima facie obvious to add an antioxidant, such as TBHQ, BHT, BHA, free radical scavengers, propylgallate, ascorbylesters of fatty acids, enzymes with anti-oxidant properties, lecithin, ascorbate, ascorbyl palmitate, or spice extracts such as rosemary extract, as taught by Cain and Remmereit to Lievense's composition comprising CLA and tocopherol (vitamin E).

For the foregoing reasons, we find no error in the Examiner's prima facie case of obviousness. Accordingly, the Examiner has provided the evidence necessary to shift the burden of coming forward with evidence or argument to Appellants. *In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993).

In response, Appellants begin by asserting that since the Examiner states that "'[t]he primary references do not teach expressly the employment of a combination of antioxidant and metal (oxidant) chelator[']. . . the cited references do not teach all of the elements of" claim 1 (Br. 6). We disagree. For the reasons set forth above, the secondary references make up for the deficiency in the primary references.

Appellants then assert that "[t]he claimed invention is not simply 'a combination of two known antioxidants.' It is the use of antioxidants and chelators to stabilize CLA – a compound that has proven to be particularly difficult to stabilize" (Br. 7). Appellants appear to be under the impression that claim 1 is directed to a method. It is not; therefore, we are not persuaded by Appellants' assertion that claim 1 is drawn to the use of antioxidants and chelators to stabilize CLA.

Lastly, Appellants direct attention to the Saebo Declaration (Br. 8). Saebo declares that "the references [relied upon by the Examiner] do not teach or suggest the use of both metal chelators and peroxide scavengers to stabilize CLA" (Saebo Dec. ¶ 3). However, as discussed above, the invention of claim 1 is a composition, not a method of stabilizing CLA. Nevertheless, Appellants assert that

> the Saebo Declaration provides evidence supporting the facts that a) prior art methods of stabilization with just one compound such as ascorbic acid are insufficient (i.e., there is a problem); b) that applicant's [sic] solved the problem; and c) that the prior art compositions necessarily contained high levels of VOCs because the problem had not been solved.

(Br. 9.) The Saebo Declaration fails to support Appellants' assertions.

Saebo fails to identify any particular prior art method of stabilizing CLA. More specifically, Saebo fails to identify the use of ascorbic acid to stabilize CLA. Instead, Saebo simply states that "[a] preparation of CLA was separated in 3 different samples. To sample A, a commercial mixture of antioxidants and metal chelators were added. A metal chelator was added to sample B and sample 3 was kept as reference sample" (Saebo Dec. ¶ 6).

Saebo declares that "[u]pon sampling aliquots for analysis, the samples collected at 24 and 48 hours had a noticeably stronger smell than sample 1" (*id.*). Saebo, however, fails to identify how "sample 1" was prepared. Instead, Saebo identifies the preparation of sample A, sample B and sample 3. Nevertheless, Saebo declared that the "addition of a few ppm citric acid as metal chelator had only a minor effect" whereas "[t]he antioxidant mixture very strongly prevented oxidation of CLA" (*id.*). Since Saebo does not identify the ingredients of the "antioxidant mixture" that prevented oxidation of CLA one is left to assume that Saebo is referring to sample A wherein an unidentified "commercial mixture of antioxidants and metal chelators were added [to a preparation of CLA]" (*id.*). Since Saebo declares that metal chelator had only a minor effect, one is left with the impression that it is the antioxidants in this commercial mixture that exhibited the effect of preventing oxidation. This is, however, exactly what the prior art relied upon by the Examiner teaches (*see e.g.* Answer 5). Therefore, contrary to Appellants' assertion, the Saebo declaration fails to support Appellants' assertion that their composition solved a problem that remained unsolved by the prior art (Br. 9).

In sum, the Saebo declaration fails to provide the factual foundation necessary to support Appellants' assertions[3]. Instead, the Saebo declaration supports a conclusion that "a proper antioxidant mixture" is necessary to prevent oxidation of CLA (Saebo ¶ 6, last sentence). Further, while the Saebo declaration makes reference to an opinion of the "Norwegian Food Research Institute . . . at Tab 1" (Saebo ¶ 10), the Norwegian Food Research

[3] We also note that it is unclear why the Saebo declaration fails to include numbered paragraphs 7-9.

Institute opinion also fails to support Appellants' assertions. Accordingly, we are not persuaded by Appellants' reliance on the Saebo declaration.

Instead, we find that the preponderance of evidence on this record supports a conclusion that the composition of claim 1 is prima facie obvious over the combined teachings of Cook, Lievense, Cain, and Remmereit. Accordingly, we affirm the rejection of claim 1 under 35 U.S.C. § 103 as being unpatentable over the combination of Cook, Lievense, Cain, and Remmereit. Claims 2-5, 10-19, 24-30, and 39 fall together with claim 1.

Obviousness-type Double Patenting:

Claims 10-19 and 24-34 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 3, and 8-22 of Fimreite. Appellants respond by asserting that they "will submit a terminal disclaimer to overcome this rejection upon resolution of the §103(a) rejection . . ." (Br. 10; Reply Br. 7). Accordingly, we summarily affirm this rejection.

CONCLUSION

In summary, we affirm all rejections of record.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

Ssc:

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